This Page Is Inserted by IFW Operations and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.

WEST Search History

DATE: Tuesday, February 04, 2003

Set Name side by side		Hit Count	Set Name result set
•	SPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=OR		T OSCIT SOL
L10	L9 and OmpA	10	L10
L9	P40	2242	L9
DB=US	SPT,PGPB; PLUR=YES; OP=OR		
L8	L5 and P40	11	L8
L7	((15/)!.CCLS. (Andreoni/)!.CCLS. (and/)!.CCLS.)	0	L7
L6	L5 and P40	11	L6
L5	424/190.1	440	L5
L4	((and/)!.CCLS. (P40/)!.CCLS. (11/)!.CCLS.)	0	L4
DB=US	SPT; PLUR=YES; OP=OR		
L3	L1 and P40	4	L3
L2	L1 and nasal delivery	200677	L2
L1	((424/190.1)!.CCLS.)	294	L1

END OF SEARCH HISTORY

Generate Collection Print

Search Results - Record(s) 1 through 10 of 10 returned.
☐ 1. <u>6416971</u> . 08 May 91; 09 Jul 02. Soluble single chain T cell receptors. Reinherz; Ellis L., et al. 435/69.1;. C12P021/03.
2. 6410030. 01 Sep 00; 25 Jun 02. Peptide fragment of respiratory syncytial virus protein G, immunogenic agent, pharmaceutical composition containing it and preparation process. Binz; Hans, et al. 424/204.1; 424/211.1 530/300 530/350 536/23.72. A61K039/12 A61K039/155.
□ 3. <u>6270993</u> . 15 Jul 98; 07 Aug 01. VEGF-binding polypeptide. Shibuya; Masabumi, et al. 435/69.1; 435/252.3 435/254.11 435/320.1 435/325 536/23.1 536/23.4 536/23.5. C07H021/04 C12N015/00.
☐ 4. <u>6197929</u> . 11 Aug 97; 06 Mar 01. Carrier protein having an adjuvant effect, immunogenic complex containing it, process for their preparation, nucleotide sequence and vaccine. Binz; Hans, et al. 530/350; 424/184.1 424/259.1 424/278.1 424/282.1 530/300 530/825. C07K001/00 A61K038/00 A61K039/108 A61K045/00.
5. 6113911. 04 Oct 96; 05 Sep 00. Peptide fragment of respiratory syncytial virus protein G, immunogenic agent, pharmaceutical composition containing it and preparation method. Binz; Hans, et al. 424/211.1; 424/184.1 424/185.1 424/186.1 424/204.1 435/69.1 435/69.3 536/23.72. A61K039/155 A61K039/12.
☐ 6. 6063612. 13 Dec 91; 16 May 00. Antiviral reagents based on RNA-binding proteins. Jayasena; Sumedha D., et al. 435/235.1; 530/320 530/325 530/826. C12N007/00 C07K014/00.
7. <u>5477001</u> . 25 Jan 93; 19 Dec 95. Recombinant DNA coding for a novel protein having beta1,3-glucanase activity, bacteria containing this DNA, transformed plant cells and plants. Sass; Catherine, et al. 800/301; 435/200 435/252.3 435/414 435/416 435/418 435/419 435/69.1 435/69.8 530/370 530/378 536/23.1 536/23.2 536/23.6 800/306 800/317.3 800/322. A01H005/00 C12N009/24 C12N015/29.
8. <u>4673641</u> . 25 Jan 84; 16 Jun 87. Co-aggregate purification of proteins. George; Henry J., et al. 435/69.1; 435/261 435/320.1 435/69.3 435/69.7 435/69.8 530/412 530/418 536/23.1 536/23.4. C12P021/00 C12P021/02 C12P021/04 C12N015/00 C12N001/02 C12N001/00 C07K003/24.
9. WO 27432 A1. 08 Nov 99. 18 May 00. USE OF AN ENTEROBACTERIUM PROTEIN OmpA FOR SPECIFIC TARGETING TOWARDS ANTIGEN-PRESENTING CELLS. BONNEFOY, JEAN-YVES, et al. A61K039/385; A61K039/39 A61P031/00 A61P035/00 A61P037/00.
☐ 10. WO 200121203 A1 EP 1218029 A1 FR 2798857 A1 AU 200075301 A BR 200014246 A. Vaccine against respiratory syncytial virus, comprises enterobacterial outer membrane protein and viral immunogen, provides protective response throughout the respiratory tract. CORVAIA, N, et al. A61K009/00 A61K039/108 A61K039/155 A61K039/385 A61K048/00 A61P031/14.
Generate Collection Print

Record List Display

	Documents
Terms	10
L9 and OmpA	
L) and on-	

Previous Page Next Page

Generate Collection

L10: Entry 9 of 10

File: EPAB

May 18, 2000

PUB-NO: WO000027432A1

DOCUMENT-IDENTIFIER: WO 27432 A1

TITLE: USE OF AN ENTEROBACTERIUM PROTEIN Ompa FOR SPECIFIC TARGETING TOWARDS

ANTIGEN-PRESENTING CELLS

PUBN-DATE: May 18, 2000

INVENTOR-INFORMATION:

NAME	COUNTRY
BONNEFOY, JEAN-YVES	FR
LECOANET, SYBILLE	CH
AUBRY, JEAN-PIERRE	FR
JEANNIN, PASCALE	FR
BAUSSANT, THIERRY	FR

INT-CL (IPC): $\underline{A61}$ K $\underline{39/385}$; $\underline{A61}$ K $\underline{39/39}$; $\underline{A61}$ P $\underline{31/00}$; $\underline{A61}$ P $\underline{35/00}$; $\underline{A61}$ P $\underline{37/00}$ EUR-CL (EPC): $\underline{A61K039/385}$; $\underline{A61K039/39}$

ABSTRACT:

CHG DATE=20001128 STATUS=0>The invention concerns the use of an enterobacterium protein OmpA, preferably Klebsiella pneumoniae P40 protein, for specific targeting of a biologically active substance associated therewith towards antigen-presenting cells, in particular human dendritic cells. The invention also concerns the use of the OmpA protein for preparing a pharmaceutical composition for preventing and/or treating diseases, in particular cancers related to a tumour-associated antigen, autoimmune diseases or infectious diseases.

End of Pesult Set

Generate Collection

L10: Entry 10 of 10

File: DWPI

Mar 29, 2001

DERWENT-ACC-NO: 2001-257929

DERWENT-WEEK: 200251

COPYRIGHT 2003 DERWENT INFORMATION LTD

TITLE: Vaccine against respiratory syncytial virus, comprises enterobacterial outer membrane protein and viral immunogen, provides protective response throughout the respiratory tract

INVENTOR: CORVAIA, N; GOETSCH, L; CORVA, A N; GOESTCH, L; CORVAIEA, N

PRIORITY-DATA: 1999FR-0011888 (September 23, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200121203 A1	March 29, 2001	F	038	A61K039/108
EP 1218029 A1	July 3, 2002	F	000	A61K039/108
FR 2798857 A1	March 30, 2001		000	A61K039/155
AU 200075301 A	April 24, 2001		000	A61K039/108
BR 200014246 A	May 21, 2002		000	A61K039/108

INT-CL (IPC): $\underline{A61}$ \underline{K} $\underline{9/00}$; $\underline{A61}$ \underline{K} $\underline{39/108}$; $\underline{A61}$ \underline{K} $\underline{39/155}$; $\underline{A61}$ \underline{K} $\underline{39/385}$; $\underline{A61}$ \underline{K} $\underline{48/00}$; $\underline{A61}$ \underline{P}

ABSTRACTED-PUB-NO: WO 200121203A BASIC-ABSTRACT:

NOVELTY - Use of an outer membrane protein A (\underline{OmpA}) from an enterobacterium, or its fragment, associated with an immunogenic peptide (I) from respiratory syncytial virus (RSV) to prepare a nasal composition that induces a protective response, against RSV infection, in the upper and/or lower (lung) respiratory tract.

ACTIVITY - Antiviral.

Mice were given three intranasal doses, at 10 day intervals, of P40G2Na (a fusion protein of the 130-230 amino acid (aa) part of RSV G protein and the 344 aa P40 protein of Klebsiella pneumoniae) at 40 micro g of the G protein fragment (G2Na). The mean serum titer of G2Na-specific immunoglobulin G was about 3.3 in naive mice but 4.2 in mice presensitized by intranasal administration of K. pneumoniae. When the immunized animals were challenged with RSV-A, a reduction in viral titer, in the lung, of 2 log 10 was observed for 5 of 6 animals, and the effect was even greater for presensitized animals.

MECHANISM OF ACTION - Immune response stimulator.

USE - The method is useful for producing vaccines for prevention or treatment of RSV infections.

ADVANTAGE - OmpA potentiates the immune response to some immunogenic peptides,-eliminating the need for adjuvants.

ABSTRACTED-PUB-NO: WO 200121203A EQUIVALENT-ABSTRACTS:

CHOSEN DRAWING: Dwg.0/5

Generate Collection

L3: Entry 2 of 4

File: USPT

May 21, 2002

CA

US-PAT-NO: 6391316

DOCUMENT-IDENTIFIER: US 6391316 B1

TITLE: Vaccine compositions comprising Haemophilus somnus transferrin-binding proteins and methods of use

DATE-ISSUED: May 21, 2002

INVENTOR - INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY Potter; Andrew A. Saskatoon Rioux; Clement Cap-Rouge CA Schryvers; Anthony B.

Calgary

US-CL-CURRENT: 424/256.1; 424/185.1, 424/190.1, 424/193.1, 530/350

CLAIMS:

What is claimed is:

- 1. A vaccine composition comprising a pharmaceutically acceptable vehicle and an isolated immunogenic H. somnus transferrin-binding protein selected from the group consisting of (a) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-971, inclusive, of FIG. 3 (SEQ ID NO:2), (b) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 29-971, inclusive, of FIG. 3 (SEQ ID NO:2), (c) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-662, inclusive, of FIG. 4 (SEQ ID NO:3), and (d) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 20-662, inclusive, of FIG. 4 (SEQ ID NO:3).
- 2. The vaccine composition of claim 1 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 1-971, inclusive, of FIG. 3 (SEQ ID NO:2).
- 3. The vaccine composition of claim 2 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 29-971, inclusive, of FIG. 3 (SEQ ID NO:2).
- 4. The vaccine composition of claim 1 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 1-662, inclusive, of FIG. 4 (SEQ ID NO:3).
- 5. The vaccine composition of claim 4 wherein said transferrin-binding protein comprises the amino acid sequence shown at amino acid positions 20-662, inclusive, of FIG. 4 (SEQ ID NO- 3).
- 6. The vaccine composition of claim_1_comprising_an_H._somnus_transferrin-binding-protein 1 and an H. somnus transferrin-binding protein 2.
- 7. The vaccine composition of claim 1 further comprising an H. somnus LppB polypeptide.

- 8. The vaccine composition of claim 1 further comprising an adjuvant.
- 9. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 1.
- 10. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 2.
- 11. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 3.
- 12. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 4.
- 13. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 5.
- 14. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 6.
- 15. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 7.
- 16. A method of treating or preventing H. somnus infection in a mammalian subject comprising administering to said subject a therapeutically effective amount of a vaccine composition according to claim 8.
- 17. A method of producing a vaccine composition comprising:
- (a) providing an isolated immunogenic H. somnus transferrin binding protein selected from the group consisting of (a) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-971, inclusive, of FIG. 3 (SEQ ID NO:2), (b) an H. somnus transferrin-binding protein 1 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 29-971, inclusive, of FIG. 3 (SEQ ID NO:2), (c) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 1-662, inclusive, of FIG. 4 (SEQ ID NO:3), and (d) an H. somnus transferrin-binding protein 2 having at least about 90% sequence identity to the contiguous sequence of amino acids shown at amino acid positions 20-662, inclusive, of FIG. 4 (SEQ ID NO:3); and
- (b) combining said transferrin-binding protein with a pharmaceutically acceptable vehicle.

Generate Collection

L3: Entry 3 of 4

File: USPT

Feb 6, 2001

US-PAT-NO: 6183755

DOCUMENT-IDENTIFIER: US 6183755 B1

TITLE: Active proteins from Borrelia burgdorferi

DATE-ISSUED: February 6, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Motz; Manfred	Munchen			DE
Soutscheck; Erwin	Munchen			DE
Fuchs; Renate	Deisenhofen			DE
Wilske; Bettina	Munchen			DE
Preac-Mursic; Vera	Munchen			DE

US-CL-CURRENT: $\underline{424/234.1}$; $\underline{424/184.1}$, $\underline{424/185.1}$, $\underline{424/190.1}$, $\underline{424/278.1}$, $\underline{424/282.1}$, $\underline{514/2}$, $\underline{530/300}$, $\underline{530/350}$, $\underline{530/825}$

CLAIMS:

What is claimed is:

- 1. A purified protein derived from Borrelia burgdorferi wherein the protein is characterized in that it
- a. elicits an immunological response from a mammal;
- b. has been prepared by expression in a bacterium other than Borrelia burgdorferi;
- c. is free of other proteins derived from Borrelia burgdorferi; and
- d. is a protein having SEQ ID NO:11, SEQ ID NO:15, at least 10 amino acids of SEQ ID NO:11, or at least 10 amino acids of SEQ ID NO:15.
- 2. The purified protein of claim 1 which has SEQ ID NO:11 or at least 10 amino acids of SEQ ID NO:11.
- 3. The purified protein of claim 1 which has SEQ ID NO:15 or at least 10 amino acids of SEQ ID NO:15.
- 4. The purified protein of claim 1 which can be prepared using DNA isolated from Borrelia burgdorferi.
- 5. The purified protein of claim 4 which can be prepared using DNA isolated from Borrelia burdorferi (DSM No. 5662).
- p-100-oligodeoxynucleotide sequence (SEQ ID NO:3),
- p-100-oligodeoxynucleotide sequence (SEQ ID NO:3),

Generate Collection Print

Search Results - Record(s) 11 through 11 of 11 returned.

☐ 11. <u>5549898</u>. 15 Apr 94; 27 Aug 96. Immunogenic anaplasma marginale surface antigens, compositions, and methods of use. McGuire; Travis C., et al. 424/269.1; 424/265.1 424/266.1 424/270.1. A61K039/00 A61K039/002 A61K039/005 A61K039/018.

Generate Collection Print

Terms	Documents
L5 and P40	11

Previous Page

Next Page